



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

LS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,249	08/28/2003	Michael M. Neff	WSHU 2064.1	7302
321	7590	07/13/2005	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			BAUM, STUART F	
			ART UNIT	PAPER NUMBER
			1638	

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,249

Applicant(s)

NEFF, MICHAEL M.

Examiner

Stuart F. Baum

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-88 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-88 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, 24-25, 30, 41-42, 44-45, 47-52, 54-63, 80-82, and 84-88, drawn to a transgenic plant cell or plant transformed by an OBP nucleic acid expression vector, wherein the OBP3 nucleic acid has a sequence set forth in SEQ ID NO:1 or variants thereof, and seed produced from said plant, a recombinant expression vector comprising said nucleic acid, a method for producing a transgenic plant having a decreased size of the aerial portion of the plant without dwarfing root tissue comprising said nucleic acid, classified in class 800, subclass 290 for example.
 - II. Claims 11-12, 22-23, 64-65 and 72-73, drawn to an agricultural product, classified in class 426, subclass 54 for example.
 - III. Claims 13-21, 31, 43, 46, 53, 66-71, 74, 76-79, and 83, drawn to a transgenic plant cell and plant seed transformed by an OBP antisense coding nucleic acid expression vector, a recombinant antisense expression vector comprising a nucleotide sequence of SEQ ID NO:1 or variants thereof, a method for producing a transgenic plant having increased size comprising said OBP antisense nucleic acid, classified in class 435, subclass 320.1 for example.

Art Unit: 1638

- IV. Claim 26, drawn to an isolated OBP3 coding nucleic acid comprising a nucleic acid of SEQ ID NO:12 or variants thereof, classified in class 536, subclass 23.6 for example.
- V. Claim 27, drawn to an isolated OBP3 coding nucleic acid comprising a nucleic acid of SEQ ID NO:13 or variants thereof, classified in class 536, subclass 23.6 for example.
- VI. Claim 28, drawn to an isolated OBP3 coding nucleic acid comprising a nucleic acid of SEQ ID NO:14 or variants thereof, classified in class 536, subclass 23.6 for example.
- VII. Claim 29, drawn to an isolated OBP3 coding nucleic acid comprising a nucleic acid of SEQ ID NO:15 or variants thereof, classified in class 536, subclass 23.6 for example.
- VIII. Claims 32 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:12, classified in class 536, subclass 24.5 for example.
- IX. Claims 33 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:13, classified in class 536, subclass 24.5 for example.
- X. Claims 34 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a

nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:14,
classified in class 536, subclass 24.5 for example.

- XI. Claims 35 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:15, classified in class 536, subclass 24.5 for example.
- XII. Claims 36 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:16, classified in class 536, subclass 24.5 for example.
- XIII. Claims 37 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:17, classified in class 536, subclass 24.5 for example.
- XIV. Claims 38 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:18, classified in class 536, subclass 24.5 for example.
- XV. Claims 39 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:19, classified in class 536, subclass 24.5 for example.

Art Unit: 1638

XVI. Claims 40 and 75, drawn to a recombinant antisense expression vector comprising an *Arabidopsis thaliana* OBP3 antisense coding nucleic acid comprises a nucleotide sequence of at least 15 contiguous nucleotides of SEQ ID NO:20, classified in class 536, subclass 24.5 for example.

Claim 75 is generic to Groups VIII-XVI and will be examined to the extent that it is drawn to the elected invention.

2. The inventions are distinct, each from the other because of the following reasons

3. Inventions VIII-XVI are unrelated to each other, as are Inventions IV-VIII unrelated to each other as are Inventions I and III unrelated to Inventions VIII-XVI. Applicant is reminded that nucleotide sequences encoding different proteins are structurally distinct chemical compounds and are unrelated to one another, as are different proteins structurally distinct chemical compounds and unrelated to one another. These sequences are thus deemed to normally constitute **independent and distinct** inventions within the meaning of 35 U.S.C. 121.

Absent evidence to the contrary, each such sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq (see MPEP 803.04 and 2434). This requirement is not to be construed as a requirement for an election of species, since each nucleotide and amino acid sequence is not a member of a single genus of invention, but constitutes an independent and patentably distinct invention.

4. Inventions I and III are unrelated to each other. Applicants are claiming a nucleic acid molecule in sense and antisense orientation as well as plants and methods comprising nucleic

Art Unit: 1638

acid molecules in either sense or antisense orientation. It is recognized in the art, that nucleic acid molecules in antisense orientation are used to down-regulate the expression or reduce the activity of a specific protein whereas over-expressing a nucleic acid molecule in sense orientation is used to upregulate or increase the activity of a specific protein. The two different sequences, i.e., antisense and sense, are distinct one from the other in structure and function, and utilize different mechanisms. Therefore, each one requires a separate search and examination that is unique to nucleic acid molecules operably linked to promoters in either sense or antisense orientation.

5. Inventions IV-VII and inventions VIII-XVI are unrelated to each other. Applicants are claiming a nucleic acid molecule in sense and antisense orientation. It is recognized in the art, that nucleic acid molecules in antisense orientation are used to down-regulate the expression or reduce the activity of a specific protein whereas over-expressing a nucleic acid molecule in sense orientation is used to upregulate or increase the activity of a specific protein. The two different sequences, i.e., antisense and sense, are distinct one from the other in structure and function, and utilize different mechanisms. Therefore, each one requires a separate search and examination that is unique to nucleic acid molecules operably linked to promoters in either sense or antisense orientation.

6. Inventions I and III-XVI and invention II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are distinct from each other because the end products are

Art Unit: 1638

distinct from each other. The agricultural product of Group II which includes for example, oil, is distinct from the nucleic acid products of groups I and III-XVI.

7. Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, and the literature and sequence searches required for each of the Groups are not required for another of the Groups, restriction for examination purposes as indicated is proper.

8. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

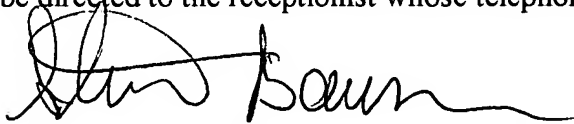
9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on 571-272-0804. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 1638

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

A handwritten signature in black ink, appearing to read "Stuart F. Baum". The signature is fluid and cursive, with the last name "Baum" being more prominent and written in a larger, more stylized script than the first name.

Stuart F. Baum Ph.D.

Patent Examiner

Art Unit 1638

July 6, 2005